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| **Case Title** | Cardiac Tamponade- in a Cancer Patient |
| **Scenario Name** |  |

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| **Learning Objectives (3 or more)** [Use action words](http://ubccpd.ca/sites/ubccpd.ca/files/Accreditation_Learning%252520Objectives_%252520Verbs.pdf) | |
| **Knowledge:**   1. Approach to Cardiogenic Shock 2. Management of Cardiac Tamponade | |
| **Skills:**   1. Demonstrate airway management 2. Perform pericardiocentesis 3. Manage hypotension | |
| **Attitude/Behaviours**   1. Demonstrate Team skills 2. Demonstrate Situational awareness 3. Demonstrate Graded Assertiveness | |
| **Scenario Environment** | |
| **Location** | ER |
| **Monitors** | Telemetry/ Crash Cart/ defibrillator |
| **Props/Equipment** | Defibrillator, Airway equipment  EKG, ACLS Algorithms on hand |
| **Make-up/Moulage** | None |
| **Potential Distractors** | None |

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| **Case Introduction:** |
| 60-year-old women, severe dyspnea and tachycardia, 5 minute ETA. |

| **Patient Parameters** | **Effective Management** | **Notes** |
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| **Phase 1: Unstable Cardiac Tamponade**  **Condition:** Unstable  Patient is pale, diaphoretic with increased work of breathing  **Initial Assessment**   * **Heart Rhythm:** Sinus Tachycardia * **HR:** 140 * **BP:** 80/60 * **RR:** 40 * **SP02:** 94% * **CVS:**  Distended neck veins are observed on exam | * **Take a focused history** (see Notes column) * **Medical Management** * Airway Management – RSI with conservative drug dosages required. * Pericardiocentesis * Hypotension management– fluid and   vasopressor  **Consequences of ineffective management**   * If pericardiocentesis not performed correctly or in a timely manner- progress to Phase 2 (PEA Arrest). * If performed correctly, progress to Phase 3 (Condition improves) | **Focused history**   * Increasing dyspnea over 2 days, * Poor appetite and PO intake   **PMHx**   * Metastatic Breast Cancer * Currently on chemo and radiation therapy   **Meds**   * Chemo and radiation therapy * Other meds unknown   **Allergies**   * None |
| **Phase 2: PEA Arrest**  **Condition:** Coding  **Physical Examination**   * **Heart Rhythm:** Sinus Tachycardia * **HR:**  130 * **BP:** -/- * **RR:** apneic * **CNS:** unresponsive * **CVS:** No palpable pulses | 1. **Patient Reassessment** (see Notes column) 2. **Medical Management** 3. PEA Management:    1. Epi q 3-5minutes    2. Run PEA algorithm – H’s and T’s    3. Pericardiocentesis if not already performed   **Consequences of ineffective management**   * If pericardiocentesis not performed correctly- remain in PEA Arrest | 1. **Patient Reassessment**   **Airway**   * Not patent- needs to intubate   **Breathing**   * Apneic- needs to use BVM   **Circulation**   * No palpable pulse- needs to do CPR |
| **Phase 3: Condition Improves**  **Condition:** Stabilized  (progress to this **ONLY** if Pericardiocentesis is performed correctly)  **Physical Examination**   * **Heart Rhythm:** Sinus Tachycardia * **HR:** 110 * **BP:** 92/64 * **RR:** 18 * **Chest:** Good – equal A/E | 1. **Patient Reassessment** (see Notes column)-*Recognizes change in condition* 2. **Medical Management:**  * Consults ICU for possible drain placement | 1. **Patient Reassessment**   **Airway**   * if intubated patient breathing on own * If BVM patient, breathing on own, biting on airway   **Breathing**   * Good – equal A/E   **Circulation**   * Yellow fluid from syringe * BP improves with fluid removed |

**Insert more lines if more phases required.**

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| **Expected Patient Management** | **Debriefing Points** |
| 1. **Student** 2. **R1** 3. **Senior IM resident** |  |

**References:**

**LABS – click** [here](https://extranet.interiorhealth.ca/IHUBCFaculty/Diagnostics/Forms/AllItems.aspx?RootFolder=%25252FIHUBCFaculty%25252FDiagnostics%25252FLabs&View=%25257bFD97E2FE-FD01-433F-B9CB-D75A4195924E%25257d) **OR fill out below**

RUN DATE: Today LABORATORY \*LIVE\* Lab Summary Report

LOCATION

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| Name: | | | | | | Age/Sex: | | | | | | | |
| Acct#: | | | Unit#: | | | | | | Status: Admitted | | | | Location: SIM |
| Reg: | | | | | Disch: | | | | | | | Code status - | |
| COMPLETE BLOOD COUNT | | | | | | | | | | | | | |
| Date |  | | |  | | | |  | | |  | |  |
| Time |  | | |  | | | |  | | | Reference | | Units |
| WBC |  |  | |  | | | H |  | |  | (3.5-10.8) | | 10^9/L |
| Toxic changes seen |  |  | |  | | |  |  | |  | (4.3-5.7) | | 10^12/l |
| Hgb |  |  | |  | | | L |  | |  | (130-170) | | g/L |
| MCV |  |  | |  | | | L |  | |  | (0.37-0.47) | | L/L |
| Platelets |  |  | |  | | | H |  | |  | (150-400) | | 10^9/L |
| INR |  |  | |  | | | H |  | |  | 0.9-1.2 | |  |
| D-Dimer |  |  | |  | | |  |  | |  |  | |  |
| PTT |  |  | |  | | |  |  | |  |  | |  |
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| CHEMISTRY | | | | | | | | | | | | | |
| ADMISSION |  | | |  | | | |  | | |  | |  |
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| Glucose-Random |  |  | |  | | | H |  | |  | (3.0-11.0) | | mmol/L |
| Na |  |  | |  | | | L |  | |  | (137-145) | | mmol/L |
| K |  |  | |  | | | H |  | |  | (3.5-5.0) | | mmol/L |
| Cl |  |  | |  | | |  |  | |  | (98-107) | | mmol/L |
| HCO3 |  |  | |  | | | L |  | |  | (22-26) | | mmol/L |
| Urea |  | H | |  | | | H |  | |  | (2.5-6.1) | | mmol/L |
| Creat |  |  | |  | | | H |  | |  | (62-106) | | mmol/L |
| GFR Est |  |  | |  | | | L |  | |  | (> 60) | | ml/min |
| C Reactive Protein |  |  | |  | | | H |  | |  | <10 | |  |
| Lactic Acid |  |  | |  | | | H |  | |  | <2.0 | | mmol/L |
| ARTERIAL BLOOD GAS  pH - , PC02 – , p02 – , HC03 – , O2 Sat - % | | | | | | | | | | | | | |